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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/066,160	01/31/2002	Steven Teig	SPLX.P0073	3579
23349	7590	07/12/2004	EXAMINER	
STATTLER JOHANSEN & ADELI			DINH, PAUL	
P O BOX 51860			ART UNIT	
PALO ALTO, CA 94303			PAPER NUMBER	
			2825	

DATE MAILED: 07/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/066,160

Applicant(s)

TEIG ET AL.

Examiner

Paul Dinh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 May 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 9-14 is/are rejected.
- 7) ☒ Claim(s) 5-17 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 July 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>5/14/04 + 5/18/04</u> . | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

This Final Office Action is a response to the IDS + amendment + remarks filed on 4/23/04, 5/14/04, and 5/18/04. The remarks are not persuasive; therefore, the previous rejections based on Sriram, Wang, and Yasuda are retained, see the following details.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1, 9-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Sriram et al. (USP 6519751) who discloses a method/program comprising:

(Claim 1 and similarly recited claim 10)

- a) identifying a (first) route for a (first) net (fig 1-8);
- b) determining whether embedding the first route in a region will make a set of unrouted nets unroutable (col 2 lines 25-27);
- c) when embedding the (first) route will make the set of unrouted nets unroutable, identifying a (second) route for the (first) net (fig 1-8)

(Claim 9)

- a) identifying a route for a net (fig 1-8);
- b) determining whether to embed the identified route first route based on an estimated routing cost (fig 7, col 3 lines 24-29) of a set of unrouted nets in a region when the region contains the identified route.

2. Claims 1, 5, 9-10, 14 are rejected under 35 U.S.C. 102(e) as being anticipated by Wang et al. (USP 6543043) who discloses a method/program comprising:

(Claim 1 and similarly recited claim 10)

- a) identifying a (first) route for a (first) net (fig 3-11);

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b) determining whether embedding the first route in a region will make a set of unrouted nets unroutable (fig 4, col 13 lines 1-8);

c) when embedding the (first) route will make the set of unrouted nets unroutable, identifying a (second) route for the (first) net (fig 3-11)

(Claim 9)

a) identifying a route for a net (fig 3-11);

b) determining whether to embed the identified route first route based on an estimated routing cost (fig 4, col 11-12) of a set of unrouted nets in a region when the region contains the identified route.

(Claims 5, 14) when embedding the (first) route will not make the set of unrouted nets unroutable; embedding the first route in the region (fig 4)

3. Claims 1-5, 9-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Yasuda et al. (USP 5889677) who discloses a method/program comprising:

(Claim 1 and similarly recited claim 10)

a) identifying a (first) route for a (first) net (fig 1-8, 27-40, 45);

b) determining whether embedding the first route in a region will make a set of unrouted nets unroutable (fig 3, col 8 lines 20-27, col 14 lines 51+);

c) when embedding the (first) route will make the set of unrouted nets unroutable, identifying a (second) route for the (first) net (col 3, fig 1-3, 36-37).

(Claim 9)

a) identifying a route for a net (fig 1-49);

b) determining whether to embed the identified route first route based on an estimated routing cost of a set of unrouted nets in a region when the region contains the identified route (col 14, 42, fig 1-3, 36-37).

(Claims 3, 12) embedding the first route in the region, removing (fig 38) the first route in the region when the embedding make the set of unrouted nets unroutable

(Claims 3-4, 12-13) embedding the first route in the region, removing (fig 4) the first route in the region when the embedding make the set of unrouted nets unroutable; embedding a second route for the region (fig 1-3, 36-37, col 3)

(Claims 5, 14) when embedding the (first) route will not make the set of unrouted nets unroutable; embedding the first route in the region (fig 1-3)

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Response to Applicant Remarks

The prior art of record clearly disclose all the elements recited in the claims as detailed above.

Allowable Subject Matter

Claims 6-8, 15-17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims

Claims 6-8, 15-17 would be allowable because the prior art does not teach or suggest the limitation (three further steps) on lines 2-6 of claim 6 and similarly recited claim 15.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul Dinh whose telephone number is 571-272-1890. The examiner can normally be reached on Monday to Friday from 8:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew S. Smith can be reached on 571-272-1907. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Paul Dinh

Patent Examiner



VUTHE SIEK
PRIMARY EXAMINER